

AMENDMENTS TO THE CLAIMS

1. (previously presented) A subsystem controller implemented as a single integrated circuit for control of a device or subsystem within an electronic system having system processing components, the subsystem controller comprising:

a complex programmable logic device that can be programmed to provide logic circuits that implement control functionality;

a micro-controller that can execute software routines that implement control functionality;

read-only memory that stores executable code for execution by the micro-controller;

random-access memory that can store data and executable code for execution by the micro-controller;

a bus interface for exchanging data and control signals between the subsystem controller and system processing components; and

an additional electronic interface to a device or subsystem controlled by the subsystem controller.

2. (original) The subsystem controller of claim 1 wherein control functionality of the subsystem controller is partitioned between logic circuits programmed into the complex programmable logic device and software routines executed by the micro-controller.

3. (currently amended) The subsystem controller of claim 1 programmed to control display of information on ~~an LCD~~ a liquid-crystal display window included in an external front panel display of a server computer.

4. (currently amended) The subsystem controller of claim 1 wherein the bus interface is an ~~I²C~~ inter-integrated circuit bus interface.

5. (original) The subsystem controller of claim 1 wherein the additional electronic interface is an 8-bit input/output bus and additional signal lines.

6. (currently amended) A method for controlling a subsystem within a complex electrical device, the method comprising:

- providing a single-~~IC~~integrated-circuit subsystem controller;
- programming control functionality into the single-~~IC~~integrated-circuit subsystem controller by
 - programming logic circuits into a complex programmable logic device included in the single-~~IC~~integrated-circuit subsystem controller,
 - implementing software routines for execution by a micro-controller within the single-~~IC~~integrated-circuit controller, and
 - storing the software routines in the single-~~IC~~integrated-circuit subsystem controller; and
 - interconnecting the single-~~IC~~integrated-circuit subsystem controller to the subsystem within the complex electrical device.

7. (currently amended) The method of claim 6 wherein the subsystem is ~~an LCD~~ a liquid-crystal display window that displays information about the components within the complex electrical device and about the state of the complex electrical device.

8. (original) The method of claim 6 wherein the complex electrical device is a computer system.

9. (currently amended) The method of claim 6 wherein the single-~~IC~~integrated-circuit subsystem controller includes the complex programmable logic device, the micro-controller, a read-only memory, a random-access memory, a bus interface, and an additional electronic interface.

10. (currently amended) The method of claim 9 wherein interconnecting the single-~~IC~~integrated-circuit subsystem controller to the subsystem within the complex electrical device further includes interconnecting the subsystem with the additional electronic interface.